

### **Abstract of the Disclosure**

A modular automated diagnostic analyzer having a fluid entry module for sample aspiration, a valve module for selecting fluids and a pump module for fluidic movement, so that a biological sample does not come into contact with the valve system through which calibrants and air are introduced to the fluid path. The fluid entry module encloses an aspiration tube rotatably and slidably engaged with the analysis mechanism chassis to move to different positions for the introduction of fluids into the analysis apparatus from different types of sample containers. A wiping seal removes residues of aspirated fluids from the exterior surfaces of the aspiration tube with the residue being aspirated into the analysis apparatus for disposal. Sensor modules mounted in a sensor chamber are structured to mechanically stack and interlock and include film sensors with use life record memories and each sensor module includes a fluid tight sealed passage and a sensor element. A fluid selection valve of highly polished ceramic material allows a valve cylinder passage to be selectively connected to fluid sources. A self-contained reagent pouch housing contains calibrants including tonometered calibrants in reagent pouches wherein each pouch wall includes multiple layers of materials wherein at least one layer is a thin, flexible glass material. The walls are extended to form a filler neck sealed by heat and pressure along a sealing line below a filler line so that no bubbles are trapped in the reagent pouch.